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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,978

05/01/2006

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853663.418USPC

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06/02/2009

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EXAMINER

PHU, PHUONG M

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

06/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,978	Applicant(s) RYTER, ROLAND EGON	
	Examiner Phuong Phu	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,8,11 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 2-4,6,7,9,10,12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 04/03/09. Accordingly, claims 1-16 are currently pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5, 8, 11 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cadd (5,894,593) in view of Laudel et al (6,657,986), Keeler (4,888,744) and Nemirovski (6,671,379).

-Regarding claim 1, Cadd teaches an apparatus (comprising (126, 128)) at a receive site, including:

an input (input of (126)) for receiving a digitally coded frequency demodulated signal (125), which is encoded by a code (113), via an encoder (112) at a transmit site, (see figure 1, col.2, lines 18-50).

Cadd does not teach that said frequency demodulated signal being processed by digital means for performing a correlation in order to determine whether a correlation criterion is fulfilled, and digital means for performing a minimum-maximum evaluation in order to determine whether a minimum-maximum criterion are fulfilled, and that said apparatus further comprising digital processing means to calculate the current offset of the frequency demodulated signal and to cancel the current offset if both criteria are fulfilled, as claimed.

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Cadd teaches that the apparatus generates a code (128).

Laudel et al teaches a code generator means for generating a code (104a), wherein the code generator means comprises (see figure 1B, col. 2, lines 8-47):

means (comprising (110b, 120b)) for processing a received signal to perform a correlation for obtaining only resulted signals equal or above an horizontal axis (see figure 1D), (note that said performing the correlation can be called here as “performing a correlation in order to determine whether a correlation criterion is fulfilled”, by obtaining only resulted signals equal or above the horizontal axis),

means (comprising (110c, 120c)) for processing the received signal to perform another correlation for obtaining only resulted signals equal or above an horizontal axis (see figure 1E), (note that said performing the correlation can be called as “performing a minimum-maximum evaluation in order to determine whether a minimum-maximum criterion are fulfilled”, by obtaining only resulted signals equal or above the horizontal axis), and

processing means (comprising (122)) to calculate the current offset of the received signal and to gradually cancel the current offset during both criteria are fulfilled, (see figure 1F, col. 1, lines 40-42, col. 2, lines 28-36).

Since Cadd does not teach in detail how the code (128) is generated, it would have been obvious for one skilled in the art to implement Cadd, as taught by Laudel et al, in such a way that the apparatus would comprise a code generator means for generating the code (128), wherein the code generator means would include first means for processing the digitally coded frequency demodulated signal to perform a correlation in order to determine whether a correlation criterion is fulfilled, by obtaining only resulted signals equal or above a horizontal axis); second means for

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processing the digitally coded frequency demodulated signal to perform a minimum-maximum evaluation in order to determine whether a minimum-maximum criterion are fulfilled, by obtaining only resulted signals equal or above a horizontal axis), and processing means to calculate the current offset of the received signal and to gradually cancel the current offset during both criteria are fulfilled, or namely if both criteria are fulfilled, so that the code (128) would be obtained as required and expected.

Cadd in view of Laudel et al does not teach that said first means, second means and process means are digital means, as claimed.

Cadd in view Laudel et al teaches that each of said first means and second means comprises a correlator (110b or 110c), said processing means comprises an adder (122), (see Laudel et al, figure 1B).

Keeler teaches that a correlator can be implemented as a digital correlator or an analog correlator (see col. 4, lines 28-30).

In addition, Nemirovski teaches that an adder can implemented as a digital adder or an analog adder, (see col. 8, lines 61-62).

It would have been obvious for one skilled in the art, within his skills and upon design preference, to implement or alternatively implement Cadd invention, in view of Laudel et al, as taught by Keeler and Nemirovski, in such a way that the correlator in each of said first and second means would be implemented, or alternatively implemented, as a digital correlator, and the adder would be implemented, or alternatively implemented, as a digital adder, so that the correlators and adder would be obtained as required and expected.

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With the implementation, said first means and second means can be called as digital means, and said processing means called as digital processing means.

-Regarding claim 5, Cadd in view of Laudel et al, Keeler and Nemirovski teaches that said first means and second means provide signals to said processing means in order to cause the processing means to cancel the current offset, (see Laudel et al, figure 1B).

-Regarding claim 8, Cadd in view of Laudel et al, Keeler and Nemirovski teaches that said first means performs a correlation to provide an output signal indicating a criterion for a known sequence (104b) is fulfilled, (see Laudel et al, figures 1B and 1D).

-Regarding claim 11, Cadd in view of Laudel et al, Keeler and Nemirovski teaches that the frequency demodulated signal is an encoded signal, being encoded by (112), (considered here equivalent with the limitation "digital coded signal"), (see Cadd, figure 1).

-Regarding claim 14, as applied to claim 1, Cadd in view of Laudel et al, Keeler and Nemirovski teaches the apparatus (comprising (126, 128)), as claimed. Cadd in view of Laudel et al, Keeler and Nemirovski further teaches that the apparatus is included in a receiver (120), (see Cadd, figure 1).

-Regarding claim 15, as applied to claims 1 and 14, Cadd in view of Laudel et al, Keeler and Nemirovski teaches that the receiver comprises an analog front-end (122), and back end (comprising (126, 128)) configurable as digital one (see Cadd, figure 1), and said apparatus (comprising (126, 128)) determines a frequency offset error being part of said back end, (see Cadd, figure 1, and Laudel et al, figure 1B).

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-Regarding claim 16, Cadd in view of Laudel et al, Keeler and Nemirovski does not teach that the receiver is designed to receive and process FSK or GFSK modulated antenna signals, as claimed.

Cadd in view of Laudel et al, Keeler and Nemirovski teaches that the receiver designed to receive and process frequency modulated antenna signals, being frequency-modulated by a FM modulator (114)(see Cadd, figure 1).

FSK or GFSK, being one among choices for frequency modulations, is well-known in the art, and the examiner takes Official Notice.

It would have been obvious for one skilled in the art to implement, or alternatively implement Cadd invention, in view of Laudel et al, Keeler and Nemirovski, in such a way that that the FM modulator (114) would be implemented, or alternatively implemented, as a FSK or GFSK modulator, and the frequency modulated antenna signals would be FSK or GFSK modulated antenna signals, being FSK or GFSK modulated by the modulator (114), so that the implementation would become another embodiment derived from teachings of Cadd, Laudel et al, Keeler and Nemirovski.

Allowable Subject Matter

4. Claims 2-4, 6, 7, 9, 10, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed 4/30/09 have been fully considered.

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As results, the previous objections to Drawings have been withdrawn, and claims 2-4, 6, 7, 9, 10, 12 and 13 are indicated allowable set forth above.

Claims 1, 5, 8, 11 and 14-16, upon further consideration, are deemed not allowable because of reasons set forth above in this Office Action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (8:00 AM - 4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuong Phu
Primary Examiner
Art Unit 2611

/Phuong Phu/
Primary Examiner, Art Unit 2611